ABSTRACT

A method is provided for repopulating degenerated of immunetolerant mice which lack mature B and T lymphocytes with xenogenic mammalian hepatocytes, particularly primate hepatocytes to generate chimeric mice. In addition, a method of generating a human hepatitis virus-infected chimeric mouse is provided. A preferred xenogenic primate hepatocyte is derived from human, chimpanzee or baboon. These chimeric mice are useful in the investigation of host and viral mechanisms determining hepadnaviral persistence and hepatocarcinogenesis. Methods for monitoring the development of hepatitis and hepatocellular carcinoma as well as methods for testing and screening anti-viral and anti-cancer compounds with this model system are also provided.